

Application No.: Not Yet Assigned

Docket No.: G0365.0352/P352

REMARKS

This Preliminary Amendment is being filed in order to reduce the filing fee and to place the application in better form for examination. Applicants reserve the right to pursue the original claims and other claims in this application and in other applications. Favorable action on the present application is solicited.

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Respectfully submitted,

By 

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**MARKED-UP VERSION SHOWING CHANGES MADE**

3. (Amended) The polymer according to claim 1 [or claim 2], wherein R is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkenyl, C<sub>1</sub>-C<sub>6</sub> aralkyl and C<sub>1</sub>-C<sub>6</sub> alkaryl, C<sub>1</sub>-C<sub>6</sub> alkylamido and C<sub>1</sub>-C<sub>6</sub> alkylimido, preferably hydrogen or methyl.

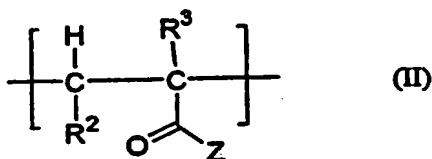
4. (Amended) The polymer according to [any preceding] claim 1, wherein R<sup>1</sup> is hydrogen, methyl, ethyl, propyl, butyl, pentyl or isomers thereof, preferably hydrogen or methyl.

5. (Amended) The polymer according to [any preceding] claim 1, wherein the molecular weight (Mw) is in the range 50,000-4000, preferably 25,000-40,000.

6. (Amended) The polymer according to [any preceding] claim 1, wherein R is hydrogen, R<sup>1</sup> is methyl.

7. (Amended) The polymer according to [any preceding] claim 1, wherein the polymer is a homopolymer.

8. (Amended) A polymer according to [any of claims] claim 1 [to 6] comprising the unit (II)



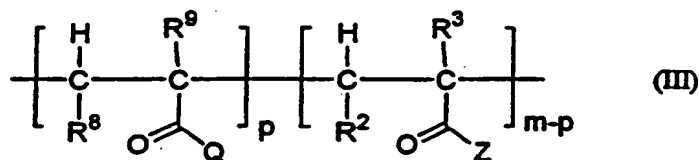
wherein R<sup>2</sup> is selected from hydrogen, C<sub>1</sub>-C<sub>18</sub> alkyl, C<sub>1</sub>-C<sub>18</sub> alkenyl, C<sub>1</sub>-C<sub>18</sub> aralkyl, C<sub>1</sub>-C<sub>18</sub> alkaryl, carboxylic acid and carboxy-C<sub>1-16</sub>alkyl; R<sup>3</sup> is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, pentyl and isomers thereof, Z is a pendent group

selected from the group consisting of  $\text{NR}^4\text{R}^5$ ,  $\text{SR}^6$  and  $\text{OR}^7$ , wherein  $\text{R}^4$  is an acyl group, preferably an aminoacyl group or oligopeptidyl group;  $\text{R}^5$  is selected from hydrogen,  $\text{C}_1\text{-C}_{18}$  alkyl,  $\text{C}_1\text{-C}_{18}$  alkenyl,  $\text{C}_1\text{-C}_{18}$  aralkyl,  $\text{C}_1\text{-C}_{18}$  alkaryl;  $\text{R}^6$  and  $\text{R}^7$  are selected from the group consisting of hydrogen,  $\text{C}_1\text{-C}_{12}$  alkyl,  $\text{C}_1\text{-C}_{12}$  alkenyl,  $\text{C}_1\text{-C}_{12}$  aralkyl,  $\text{C}_1\text{-C}_{12}$  alkaryl,  $\text{C}_1\text{-C}_{12}$  alkoxy and  $\text{C}_1\text{-C}_{12}$  hydroxyalkyl, and may contain one or more cleavable bonds and may be covalently linked to a bioactive agent.

10. (Amended) A polymer according to claim 8 [or 9] comprising the unit (II) wherein  $\text{R}^2$  is hydrogen,  $\text{C}_1\text{-C}_{18}$  alkyl,  $\text{C}_1\text{-C}_{18}$  alkenyl,  $\text{C}_1\text{-C}_{18}$  aralkyl,  $\text{C}_1\text{-C}_{18}$  alkaryl,  $\text{R}^3$  is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, pentyl and isomers thereof, Z is a pendent group  $\text{NR}^4\text{R}^5$ , wherein  $\text{R}^4$  is an acyl group, preferably an aminoacyl group or oligopeptidyl group;  $\text{R}^5$  is selected from hydrogen,  $\text{C}_1\text{-C}_8$  alkyl,  $\text{C}_1\text{-C}_{12}$  alkenyl,  $\text{C}_1\text{-C}_{12}$  aralkyl,  $\text{C}_1\text{-C}_{12}$  alkaryl; and wherein the polymer has a molecular weight (Mw) of less than 50,000.

11. (Amended) A polymer according to claim 8 [to 10] wherein (II) is linked to a bioactive agent and the bioactive agent is a drug.

13. (Amended) A polymer according to [any of claims] claim 8 [to 12], wherein the polymer has the structure (III)



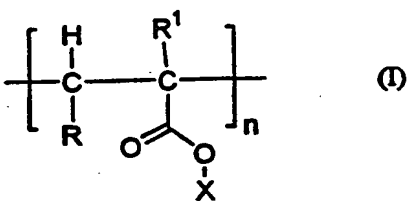
wherein  $\text{R}^8$  and  $\text{R}^9$  are selected from the same groups as  $\text{R}^2$  and  $\text{R}^3$  respectively, Q is a solubilising [groups] group selected from the group consisting of  $\text{C}_1\text{-C}_{12}$  alkyl,  $\text{C}_1\text{-C}_{12}$

alkenyl, C<sub>1</sub>-C<sub>12</sub> aralkyl, C<sub>1</sub>-C<sub>12</sub> alkaryl, C<sub>1</sub>-C<sub>12</sub> alkoxy, C<sub>1</sub>-C<sub>12</sub> hydroxyalkyl, C<sub>1</sub>-C<sub>12</sub> alkylamido, C<sub>1</sub>-C<sub>12</sub> alkylimido, C<sub>1</sub>-C<sub>12</sub> alkanoyl, and wherein m and p are integers of less than 500.

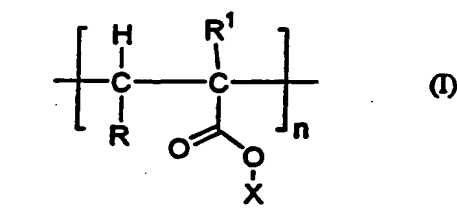
17. (Amended) The process according to claim 15 [or 16], wherein the process additionally comprises a solvent, an Atom Transfer Radical Polymerization initiator selected from alkylhalides, preferably alkylbromides, and a mediator which comprises a Cu(I)Br moiety complexed by a chelating ligand, preferably the mediator being selected from Cu(I)Br(Bipy)<sub>2</sub>, Cu(I)Br(Bipy)N, Cu(I)Br(N, N', N'', N'''-pentamethyldiethylenetriamine), Cu(I)Br[methyl<sub>6</sub> tris(2-aminoethyl)amine] and Cu(I)Br(pentamethyldiethylene).

24. (Amended) A process according to claim 22 [or 23], wherein E is selected from the group consisting of N-succinimidyl, pentachlorophenyl, pentafluorophenyl, para-nitrophenyl, dinitrophenyl, N-phthalimido, N-norbornyl, cyanomethyl, pyridyl, trichlorotriazine, 5-chloroquinilino, and imidazole, preferably N-succinimidyl or imidazole, most preferably N-succinimidyl.

25. (Amended) A process according to claim 23, wherein the polymer of formula (VI) is a polymer of formula (I) [according to any of claims 1 to 7]



26. (Amended) A process according to [any of claims 15 to 21] claim 22, wherein the polymer of the formula (I)



is reacted in a second step with a reagent  $\text{HR}^x$  as defined in claim 22, whereby at least some of the groups  $-\text{OX}$  are replaced by  $-\text{R}^x$  in the product derivatised polymer.

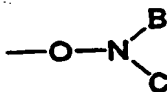
27. (Amended) A process according to [any of claims 22 to] claim 26, wherein  $\text{HR}^x$  is  $\text{H}_2 \text{NR}^{14}$  preferably  $\text{NR}^{14}$  being an N-aminoacyl or N-oligopeptidyl group.

28. (Amended) A process according to [any of claims 22 to] claim 27, wherein  $\text{R}^x$  comprises one or more aminoacyl groups, preferably 2 to 6, most preferably 4 aminoacyl groups.

29. (Amended) A process according to [any of claims 22 to] claim 28 wherein  $\text{R}^x$  comprises a bioactive agent, preferably an anti-cancer drug.

30. (Amended) A process according to [any of claims 22 to] claim 29, comprising the additional step of reacting the unreacted groups, OE or OX groups, with a solubilising group selected from the group consisting of  $\text{C}_1\text{-C}_{12}$  alkyl,  $\text{C}_1\text{-C}_{12}$  alkenyl,  $\text{C}_1\text{-C}_{12}$  aralkyl,  $\text{C}_1\text{-C}_{12}$  alkaryl,  $\text{C}_1\text{-C}_{12}$  alkoxy,  $\text{C}_1\text{-C}_{12}$  hydroxyalkyl,  $\text{C}_1\text{-C}_{12}$  alkylamido,  $\text{C}_1\text{-C}_{12}$  alkylimido,  $\text{C}_1\text{-C}_{12}$  alkanoyl.

34. (Amended) A process according to claim 31 [or 32], wherein step B is a Controlled Radical Polymerisation process, preferably one in which polymer of the structure (XV) has one terminal group A and one terminal group



35. (Amended) The polymer as defined in [any of claims] claim 1 [to 14], for use in a method of manufacture of a medicament, preferably for the treatment of cancer.

[37] 36. (Amended) A composition comprising a polymer as defined in [any of claims] claim 1 [to 14] and a pharmaceutically acceptable excipient.

[38] 37. (Amended) Use of a polymer as defined in [any of claims] claim 1 [to 14] as an excipient.